

SARDAR PATEL UNIVERSITY, VALLABH VIDYANAGAR, GUJARAT



GREEN AUDIT REPORT Academic Year 2021 - 2023



EARTH



WATER



AIR



LIGHT



**SPACE** 





# **AUDITOR'S VIEW**

Green Mentors is proud to Present Green University Audit Report & Green University Accreditation Certificate to the **Sardar Patel University**, **Vallabh Vidyanagar**, **Gujarat**.

This report is prepared on the bases of information provided by SPU Green Auditing Team, in the view of addressing Five Elements of Nature through Education and incorporating Sustainability in its Teaching Learning Practices.

- 1. PRITHVI (Earth) Biodiversity Landscaping & Built-up Space
- 4. JAL (Water) Water Management Practices
- 2. VAYU (Air) Air Quality Level within the Campus
- 5. AKASH (Sky) Application of Sustainable Technologies
- 3. AGNI (Energy) Energy Management Practices

Green University Auditing and Certification is a Set of Global Sustainability Indicators containing Governance & Academic, Building Design and Landscaping, Water Management Practices, Energy Uses & Saving Practices, Air Quality Level, Health & Hygiene Practices & Sustainable Resource Utilization for Green Learning Spaces.

Each Green University Auditing & Certification Indicator is in turn measured against a Set of Global Standards for Green Learning Spaces Auditing and Certification Process.

Green Mentors is proud to Announce that, SPU has achieved **450** out of 500 Points & earned Platinum Accreditation in the Global Green University Certification Standards for the Period of Academic Year 2021-23.

Virendra Rawat

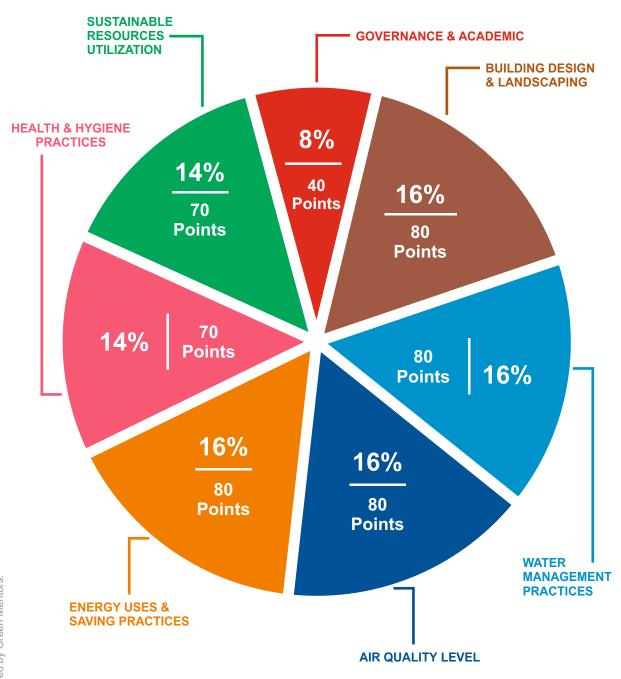
Director, Green Mentors

port is prepared by Green Mento

**GOOD FOR PUPIL & GOOD FOR PLANET** 



# **Sustainability Weightage of Assessment Areas**



# **Certification Level**

Rejection	Certification	Silver	Gold	Platinum
000-100 Points	100-200 Points	200-300 Points	300-400 Points	400-500 Points



# **ACCREDITATION CERTIFICATE**





### **Brief Introduction of Sardar Patel University**

Sardar Patel University was established in the year of 1955, as a First Rural University powered by the vision and values of first Home Minister of India, late Shri Sardar Vallabhbhai Patel. SPU was established to bring innovation through research and education to empower the rural economy of India.

Sardar Patel University is located in Valabh Vidyanagar, known as "Town of Trees and Parakeets" having oneness with the environment right from inception. University Campus is spread in 86 Acres of land and 4 satellite campuses. University is offering UG, PG & Doctoral programs in 11 disciplines.

Bhailalbhai Patel, a renowned civil engineer and visionary academician with exceptional achievements was the first Vice-Chancellor of the University. He was also the founder of Knowledge Town - Vallabh Vidyanagar that houses the University.

The University has 27 Post Graduate Departments, 1 Constituent Education College,1 Agro-Economic Research Centre 148 affiliated colleges. It is the first University to have signed an MoU with Prasar Bharati for the establishment of Community Radio Station. It is the only University in the country to be running a District level Community Science Centre.







It is the Only University to be allotted the model career center by the Ministry of Labour and Employment. It is one of the Two state Universities to have been allotted the national board for higher Mathematics, Department of Atomic Energy, Regional Library in Mathematics for more than 15 years.

The University is not only engaged in teaching and research in the areas of modern developments but continues with its mission of service, development and upliftment of rural populace.

The University has 09 academic chairs in different areas which help the Integral development of students. The University takes pride in the fact that the contribution of many of its teachers to research in various disciplines has been taken note of and recognized at the national, international levels.

The first President of India, Hon'ble Dr. Rajendra Prasad has addressed the first Convocation of Sardar Patel University.





#### 1. Governance



















Governing Body of SPU also follows well-informed decision-making, transparency in teaching learning practices & accountability in the performance and use of human potential.



H. E. the Governor of Gujarat is the Chancellor of the University. The Syndicate of the University is the supreme body for decision making which consists of 26 members from different walks of life, all committed to work for making the University a nucleus for transformation" of the area.

The Vice-Chancellor is the Principal Executive and Academic officer of the University. He is the exofficio member and the Chairman of the Syndicate, the Academic Council and of such other authorities of the University.

The Senate, makes provision for instruction, teaching and practical training, for research and for the advancement of learning, dissemination of knowledge and improvement of technical skill.

The Deans of 11 different Disciplines along with Faculty Members have the mission to contribute towards imparting formal, informal, Integral Education and training to a large number of students to develop the culture for sustainable development.



#### 2. Leadership

















The Vice Chancellor of SPU plays a pivotal role towards making the SPU as a Responsible University. He has nurtured many successful leaders through quality & responsible education. He is a lifelong learner and constantly making efforts towards building the nation through responsible education. Professor Shirish R Kulkarni is passionate about his vision and plan towards making SPU as a leading responsible University.



Professor Shirish R Kulkarni Vice Chancellor

Prof. Shirish Kulkarni, an eminent educationist, an exponent in the field of Accounting, Finance and Taxation, having an innate temperament of interfacing the modern developments with the roots is heading the university since last 4 years as the Hon'ble Vice-Chancellor.

Prof. Kulkarni is committed to make Learning a Life-long process. He has nurtured many successful leaders through quality and responsible education. He is constantly making efforts towards building the nation through accountable education and innovative research.



Dr. (Mrs.) Jyoti Tiwari, Registrar (I/C), Director, Computer Centre

This Audit report is prepared by Green Mentors.

Dr.(Mrs.) Jyoti Tiwari is the Registrar (I/C) & also the Director of the computer centre of the University. She is having expertise in the software development, hardware & networking management.



#### **SPU Internal Quality Assurance Cell (IQAC)**

The IQAC, established in the year 2000, is an 'intra-institutional' mechanism set up and used to monitor and improve the quality of institutional functions/processes and assuring these through the assessment, control, management, and enhancement with the aim of institutionalizing and internalizing quality consciousness.

The primary aim of the IQAC is to help develop/develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.

Sr. No.	Name	Position	Department Name
1	Prof. A. H. Hasmani	Coordinator	Mathematics
2	Prof. P. K. Priyan	Co-coordinator	Business Management
3	Prof. Haresh Keharia	Co-coordinator	Biosciences
4	Prof. Mitesh Jayswal	Co-coordinator	Business Management

#### **Estate Department**

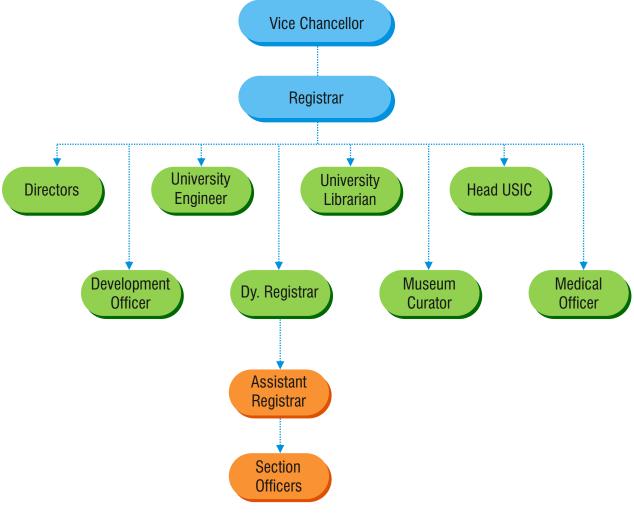
Mr. Parag N Vaidya, Head

### **University Science & Instrumentation Centre (USIC)**

Mr. Sulaksh Shah, Head



### **■** Organization Chart







#### 3. Sustainability Commitment

















SPU strongly accepts the "accountability to the future"—a special role and a special responsibility in confronting the challenges of climate change and sustainability.

Vision of SPU is rooted in its shared responsibility to build and operate a campus that contributes to the well-being of every member of its community—and ultimately to the health of the planet.

The Sardar Patel University is determined to continue its efforts of educating and training young minds in developing a higher consciousness to serve the Mother Nature. SPU have a vibrant mission to empower the society through eco-friendly solutions.

SPU are committed to be the part of the innovative sustainable education and development. SPU have been pioneer in implementing green practices and shall continue to march to **Go Green** and **Be Green**.



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### Academic Progrmmes

### **Undergraduate Programs**

Discipline	Name of the UG Programs	No. of Programs
Humanities	Bachelor of Arts, Bachelor in Social Work	7
Sciences	Bachelor of Science	3
Commerce	Bachelor of Commerce	2
Planning	Bachelor in Planning	6
Architecture	Bachelor in Architecture	1
Management	Bachelor in Business Administration	2
Technology	Bachelor in Computer Application	1

### **Postgraduate Programs**

Discipline	Name of the PG Programs	No. of Programs
Sciences	Masters of Science	14
Humanities	Masters of Arts	5
Management	Masters in Environment Accounting	1
Pharmacy	Masters of Pharmacy	1

# **Departments offering Doctoral Programs with elements of Environment**

Sr. No.	Programs	Sr. No.	Programs
1.	Biosciences Department	7.	Business Studies Department
2.	Chemistry Department	8.	Home Science Department
3.	Physics Department	9.	Hindi Department
4.	Electronics Department	10.	English Department
5.	MBA Department	11.	Gujarati Department
6.	Economics Department	12.	M B Patel College of Education

# List of Teaching Staff

### **Department of Biosciences**

(AUGC-SAP, COSIST, & DST-FIST Department)

Sr. No.	Name	Position
1	Dr. K.C. Patel	Professor & Head
2	Dr.R.B. Subramanian	Professor
3	Dr. T.V.Ramana Rao	Professor
4	Dr. Vasudev R. Thakkar	Professor
5	Dr. Hareshkumar Keharia	Professor
6	Dr.Amita R. Shah	Professor
7	Dr. Ujjval Trivedi	Professor
8	Dr. A.S. Reddy	Associate Professor
9	Dr. M. Nataraj	Assistant Professor
10	Dr. Hetal Panchal	Associate Professor
11	Mr. Dinesh Vasava	Assistant Professor

### **Department of Chemistry**

(ADST-FIST Department & UGC Centre for Excellence in Applied Polymers)

Sr.No.	Name	Position
1	Dr. N.V. Sastry	Professor
2	Dr. D.K. Raval	Professor
3	Dr. M.N. Patel	Professor
4	Dr. M.P. Patel	Professor
5	Dr. N.J. Parmar	Professor
6	Dr. H.M. Patel	Professor
7	Dr. S.S. Soni	Professor
8	Dr. P.N. Dave	Professor
9	Dr. K.R. Surati	Associate Professor
10	Dr. M.K. Mishra	Associate Professor



11	Dr. J.H. Trivedi	Assistant Professor
12	Dr. N.P. Chikhaliya	Assistant Professor
13	Dr. B.S. Bhatt	Assistant Professor
14	Dr. K.M. Vyas	Assistant Professor
15	Dr. K.R. Ram	Assistant Professor

### **Department of Computer Science and Technology**

(GH Patel Postgraduate Department of Computer Science and Technology)

Sr. No.	Name	Position
1	Dr.(Ms) D.B. Shah	Professor
2	Dr. DB Choksi	Professor
3	Prof. P.V. Virparia	Professor
4	Dr. (Ms) Priti S. Sajja	Professor
5	Mr. B.B. Patel	Associate Professor
6	Dr. Prashant Pitalia	Associate Professor
7	Mr. JV Smart	Assistant Professor
8	Dr. Hardik B Pandit	Lecturer (Contract/Adhoc)
9	Dr. Birajkumar V. Patel	Lecturer (Contract/Adhoc)
10	Dr. Jigar A. Trivedi	Lecturer (Contract/Adhoc)
11	Ms. Raina D Gaharwar	Lecturer (Contract/Adhoc)

#### **Pramukh Swami Institute of Electronics**

(Department of Electronics)

Sr.No.	Name	Position
1	Mr. D.B. Dave	Associate Professor
2	Dr. V.S. Vaishnav	Associate Professor
3	Mr. P.B. Patel	Associate Professor
4	Dr. Mrs. S.S. Patel	Professor

#### **GH Patel Institute of Materials Science**

(Department of Materials Science)

Sr.No.	Name	Position
1	Dr. R.H. Patel	Associate Professors
2	Dr. N.M. Batra	Associate Professor
3	Dr. J.K. Valand	Assistant Professor

### **Department of Mathematics**

(AUGC - SAP - DRS, DST - FIST Department, DAE - NBHM Regional Library)

Sr.No.	Name	Position
1	Dr. A.H. Hasmani	Professor
2	Dr. H.V .Dedania	Professor
3	Dr. H.S. Mehta	Associate Professor
4	Dr. J.C. Prajapat	Associate Professor
5	Dr. S.J. Ghevariya	Assistant Professor
6	Dr. J.G. Mehta	Assistant Professor
7	Mr. K.R. Balevia	Assistant Professor

### **Department of Home Science**

Sr.No.	Name	Position
1	Dr. V.H. Patel	Professor
2	Rema Subhash	Professor
3	Dr. Namrita Kola	Professor
4	Dr. Neeta Dave	Associate Professor
5	Dr. Virajbahen Roghelia	Assistant Professor
6	Dr. Pratiksha Patel	Ad-hoc Assistant Professor
7	Dr. Komal Patel	Ad-hoc Assistant Professor



# **Department of Physics**

(AUGC - SAP, DST - FIST Department)

Sr.No.	Name	Position
1	Prof. P.C. Vinodkumar	Professor
2	Prof. V.M. Pathak	Professor
3	Prof. M.P. Deshpande	Professor
4	Prof. B.Y. Thakore	Professor
5	Prof. K.D. Patel	Professor
6	Prof. G.K. Solanki	Professor
7	Prof. S.H. Chaki	Professor
8	Prof. K.N. Lad	Professor
9	Dr. S.J. Pandya	Assistant Professor

#### **DEPARTMENT OF STATISTICS**

(AUGC - SAP, DST - FIST Department)

Sr.No	Name	Position
1	Prof. A. Shanubhogue	Professor
2	Dr PA Patel	Professor
3	Dr.(Miss) JM Divecha	Associate Professor
4	Dr MB Bhatt	Assistant Professor
5	Mr DP Raykundaliya	Assistant Professor

### CENTRE FOR INTERDISCIPLINARY STUDIES IN SCIENCE & TECHNOLOGY (CISST)

(DST-PURSE Programme)

Sr.No.	Name	Position
1	Dr. Rakesh V. Patel	Assistant Professor
2	Dr. Anju P. Kunjadiya	Assistant Professor
3	Dr. Kirtan P. Dave	Assistant Professor (Contractual)
4	Dr. Sandip V. Bhatt	Assistant Professor (Adhoc)

5	Dr. Darshana N Kanthecha	Assistant Professor (Adhoc)
6	Ms. Sefali R. Patel	Assistant Professor (Adhoc)
7	Ms. Darshna B. Kanani	Assistant Professor (Adhoc)
8	Mr. Jayraj P. Anadani	Assistant Professor (Adhoc)
9	Mr. Sagnik Mukherjee	Assistant Professor (Adhoc)

#### **DEPARTMENT OF GUJARATI**

SrNo	Name	Position
1	Dr Param Pathak	Professor
2	Dr (Miss )Pinakini Pandya	Professor
3	Mr RV Chudhari	Assistant Professor
4	Mrs. Sudha A. Chauhan	Assistant Professor
5	Dr. Rajeshwari V. Patel	Assistant Professor

### **DEPARTMENT OF HINDI**

SrNo	Name	Designation
1	Dr Dayashankar Tripathi	Professor
2	Dr MM Sharma	Professor
3	Dr. DK Mahera	Professor
4	Dr HM Parmar	Associate Professor
5	Miss Seema Rathod	Assistant Professor
6	Dr. Anila Mishra	Assistant Professor
7	Dr. Parvati J. Gosai	Assistant Professor

#### **DEPARTMENT OF SANSKRIT**

Sr. No.	Name	Designation
1	Dr. Niranjankumar P. Patel	Professor
2	Dr. Maheshkumar G. Patel	Assistant Professor
3	Dr. Lalit A. Patel	Assistant Professor



#### **DEPARTMENT OF ENGLISH**

Sr.No.	Name	Position
1	Shri RK Mandalia	Associate Professor
2	Dr PJ Dave	Associate Professor
3	Dr PS Popat	Associate Professor
4	Dr M R Solanki	Assistant Professor
5	Dr P B Raval	Assistant Professor

#### **DEPARTMENT OF EDUCATION**

SrNo	Name	Position
1	Dr. S C Padvi	Associate Professor
2	Dr B P Acharya	Associate Professor
3	Mrs A J Marshal	Assistant Professor

#### H M PATEL INSTITUTE OF RURAL DEVELOPMENT

(DEPARTMENT OF ECONOMICS)

Sr.No.	Name	Position
1	Dr. H.P. Trivedi	Professor
2	Dr. Kinja lAhir	Associate Professor
3	Dr. Sonal Bhatt	Associate Professor (DCAS)
4	Dr. J.K. Barot	Assistant Professor
5	Dr. V.S. Jariwala	Assistant Professor

#### **DEPARTMENT OF POLITICAL SCIENCE**

(CENTRE OF EXCELLENCE, GOVERNMENT OF GUJARAT)

Sr.No.	Name	Position
1	Prof. Baldev Agja	Professors
2	Dr. H.A. Mansuri	Associate Professor
3	Dr. Arpit L. Patadiya	Assistant Professor

#### **DEPARTMENT OF HISTORY**

Sr.No.	Name	Position	
1	Dr. J.M. Pandya	Professors	
2	Dr. S.B. Solalanki Associate Professor		
3	Dr. D.C. Chaudhari	Assistant Professor	
4	Dr. H.V. Dave	Assistant Professor	
5	Dr. V.R. Patel	Assistant Professor	

#### **DEPARTMENT OF PSYCHOLOGY**

Sr.No.	Name	Position	
1	Dr Suresh M Makwana Professor		
2	Dr Samir J Patel	Professor	
3	Dr (Mrs) Sangita N Pathak	Associate Professor	
4	Dr Pankaj Suvera	Assistant Professor	

#### **DEPARTMENT OF SOCIOLOGY**

Sr.No.	Name	Position	
1	Dr. Ramesh H. Makwana	Professor	
2	Dr. Ila M. Macwan	Professor	
3	Dr. M.M. Makwana	Assistant Professor	

# Smt. S J Patel & Smt. K.K. Patel Department of Social Work (MSW) (DEPARTMENT OF SOCIAL WORK)

Sr.No.	Name	Position	
1	Dr. Ms. Shivani Mishra	Director	
2	Mr. Chandrik Rajdeep	Assistant Professor (Adhoc)	
3	Mr. Sunil Giri	Assistant Professor (Adhoc)	
4	Ms. Sharmishtha Solanki	Assistant Professor (Adhoc)	

5	Ms. Mukshita Dhrangadharia	Assistant Professor (Adhoc)	
6	Ms. Radha U. Shukla	Assistant Professor (Adhoc)	
7	Ms. Anamika Christi	Assistant Professor (Adhoc)	

#### **DEPARTMENT OF BUSINESS STUDIES**

(AUGC - SAP Department) (DRS Phase - II 2013 - 2018)

Sr.No.	Name	Position		
1	Dr. Sandip K Bhatt	Professor		
2	Dr. CK Sonara	Professor		
3	Dr. YM Dalvadi	Professor		
4	Dr. PR Sheth	Associate Professor		
5	Dr. Kamini Shah	Associate Professor		
6	Dr. DS Rohit	Assistant Professor		
7	Dr. Suresh P Machhar	Assistant Professor		
8	Dr. Ankur Amin	Assistant Professor		

### **G H PATEL POSTGRADUATE DEPARTMENT OF BUSINESS MANAGEMENT (MBA)**

Sr.No.	Name	Position	
1	Dr. Yogesh C. Joshi	Professor	
2	Dr. Rajnikant P. Patel	Professor	
3	Dr. Darshana R. Dave	Professor	
4	Dr. P.K. Priyan	Professor	
5	Dr. Raju M Rathod	Professor	
6	Dr. Mitesh M Jayswal	Professor	
7	Dr. Vilas Kulkarni	Associate Professors	
8	Dr. Ashish C. Mehta	Associate Professors	
9	Dr. K.S. Prasad	Associate Professors	
10	Dr. Hitesh Parmar	Assistant Professor	

#### **DEPARTMENT OF LIBRARY & INFORMATION SCIENCE**

Sr.No.	Name	Position
1	Dr. Nimesh D. Oza	Assistant Professor
2	Dr. Jignesh C. Makwana	Assistant Professor
3	Dr. Lavji N. Zala	Assistant Professor

#### **DEPARTMENT OF PHARMACEUTICAL SCIENCES**

Sr.No.	Name	Position	
1	Dr. V.K. Parmar	Associate Professor	
2	Dr. (Mrs.) B.A. Patel	Assistant Professor	
3	Dr. (Miss) S.J. Parmar	Assistant Professor	

#### **AGRO-ECONOMIC RESEARCH CENTRE**

Sr.No.	Name	Position	
1	Dr. S.S. Kalamkar	Professor and Director	
2	Dr. Hemant Sharma	Assistant Professor	

**Total Non-Teaching Staff: 214** 



#### Number of students

# **Student Enrolment**

Regular Courses	2016-17	2017-18	2018-19	2019-20
Undergraduate(UG)	33091	41781	46726	50695
Postgraduate (PG)	10580	11183	11583	12620
M.Phil.	90	36	44	41
Ph.D.	112	104	95	141

External Courses	2016-17	2017-18	2018-19	2019-20
Undergraduate(UG) (B.A. & B.Com.)	470	513	427	469
Postgraduate (PG) (M.A. & M.Com.)	1117	1003	893	829
Student Enrolment(Overseas)	33	19	5	7
Student Admission University Hostels	862	892	920	982



#### 4. Innovative Practices



















Innovation is an application and implementation of creativity; thus, creativity and innovation are inseparably related, which reflects their complementarity in providing what is new and adding value.

Post Graduate & Research Programs of SPU are driven by the innovation.

Deans and HoDs of various academic departments bring innovation into learning opportunities through collaboration with exceptional researchers, innovators & entrepreneurs.

#### Natural Air Cooling System at the Sport Complex:

A unique Natural air cooling system operating on solar system exists in the UV Sports building. 6 inch diameter PVC pipelines are installed along the Short Wall and have been laid beneath 10 ft ground level and the outlet is left in the Basketball Court area which cools the Court Area.

The Hot air is lifted by the Turbo ventilators fitted at the Ceiling.







This Audit report is prepared by Green Mentors.



#### Achievements& initiatives of University in the area of sustainable practice

"The Flora of Gujarat State" published by the University in 1978, earned the State a credit to be the FIRST STATE AFTER INDEPENDENCE to have a systematic document of plant wealth.

All Departments, Community Science Centre, Community Radio Station, Women cell and 9 Academic Chairs have noteworthy outreach and extension activities for awareness generation.













**Cumulative Score** 

39/40



### 1. Local Building Regulations











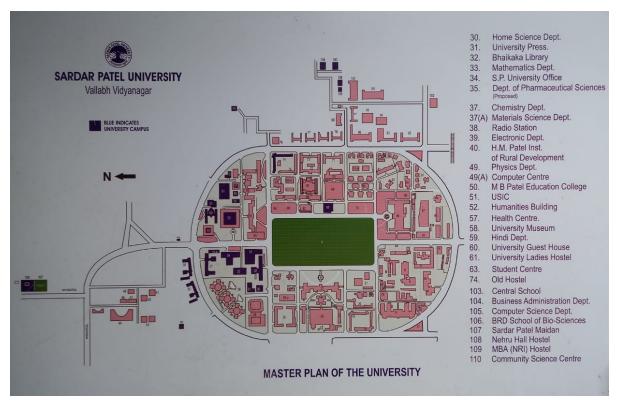




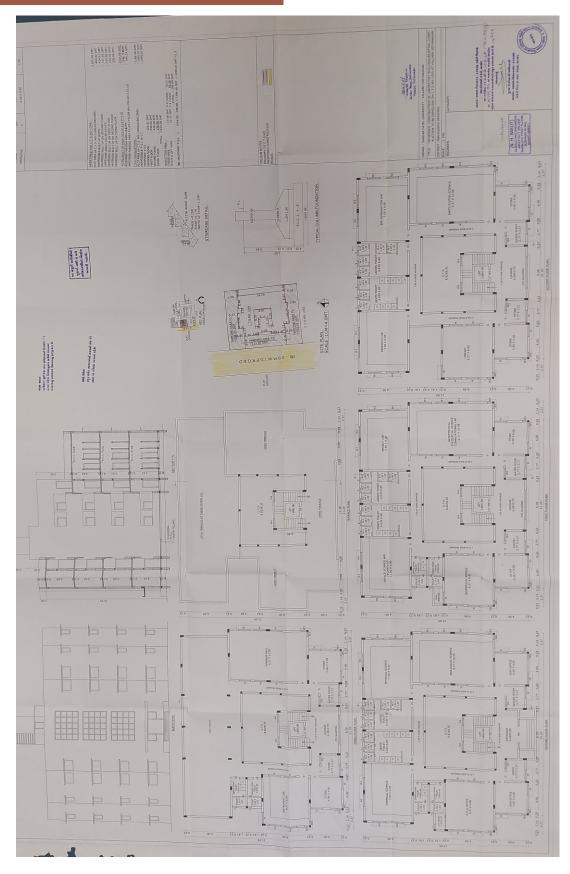




Green building laws and codes in our country are voluntary. A green building is one which uses less water, optimizes energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building. Built-up learning spaces of SPU meet all local building laws.









Details of the University building with Construction Area:

Sr. No.	Name of the Building	Construction area in Sq.Mtr.
1	University Administrative Building	3209
		439
2	Old Bio-Sciences Building	1906.12
		953.12
		299.75
		336.72
3	Press Building	475.10
		208.75
		192
4	M.B. Patel College of Education	2315.16
		528.90
5	Bhaikaka Library	4309.24
6	Hindi Bhasha Bhavan	926.52
7	Business Studies/Mathematics/Statistics Building	2219
		4437
8	Home Science Building	1740
9	Electronics Department	2294.07
10	Senate Hall/Vice-Chancellor Office Wing	832.80
11	Humanities Department	3259.14
11		773.91
12	Animal House for Home Science	210.17
13	Computer Centre	925.02
		110.00
14	University Museum	432
		254



	Materials Science Department	1079.4
15		567.09
		360
	Chemistry Department	2198.62
		1099.31
16		448.16
10		1185.19
		134.70
		134.70
17	H.M. Patel College of Economics & Agro Economics	2490.05
18	Vice Chancellor Bunglow	377.24
19	University Women Hostel-1	4080.25
20	University Women Hostel-2	650
20		1300
	Faculty Guest House	1024.66
21		111.52
		845.00
22	V.I.P. Guest House - Old	334.33
23	V.I.P. Guest House - New	297.78
24	University Health Centre	631.20
25	CISST BLDG	1524.00
26	Canteen	45
27	Toilet Block for M.P. Patel Auditorium	33.78
28	University Men's Hostel-1	2829
20		229.50
29	Academic Staff College Building	5831.45
30	Overhead Water Tank	1.51 lakh liter capacity
31	Pump Man Quarter	30.31



32	Guest House Attendant Quarter	30.31
33	Driver Quarter	30.31
34	Community Science Centre	402.45
35	Pariksha Bhavan	7500
36	University Women Hostel No.3 'formerly workshop'	2323
		2608
37	Physics Department	923
		259
38	Bank of Baroda ATM	27.88

A: University Campus Area: 86 Acres B: Total Roof Area: 1,40,012.59 sq.mtr.

: Total Roof Area Covered with Tiles : 1,35,830.59 sq.mtr.





### 2. Top-Soil Preservation

















Top-soil is the uppermost layer of soil capable of growing and supporting vegetation. Soil conservation is the prevention of loss of the top most layer of the soil from erosion or prevention of reduced fertility caused by over usage, acidification, salinization or other chemical soil contamination.

SPU have taken proactive measures towards top-soil conservation in the campus, through regular aeration that allows nutrient to reach the roots of plants, filling the holes created by aeration, indigenous gardening, building wind barriers, mulching and placing stepping stones for walkers on top soil.









3. Eco-friendly Commuting Practices

















SPU encourages its students & professors to adopt environment friendly transport to minimize environmental impact from automobile uses. University offers residential facilities to its professors and non teaching staff that minimizes impact on environment.





#### 4. Parking Facility











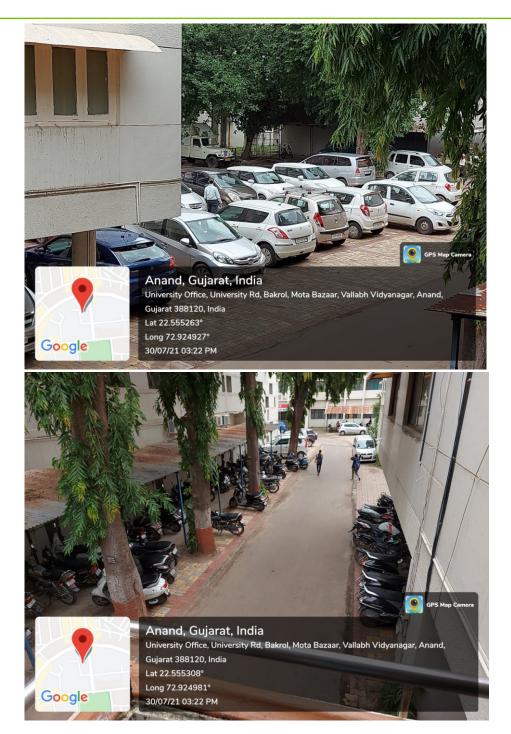








SPU is having sustainable shaded parking space that includes sustainable paving materials, energy-efficient or natural lighting, renewable energy sources and improved pedestrian walkways.





#### 5. Greenery in Campus

















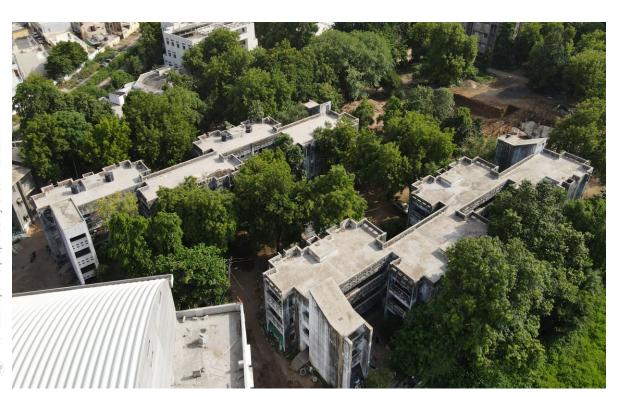
Maintaining a rich diversity of plants is vital to stable and healthy ecosystems as they provide food, shelter and other important components of habitat for wildlife.

Interaction with greenery can be beneficial for human stress reduction, emotional states and improved cognitive function.

SPU has maximized Greenery in its campus including community gardens, parks, meadows, green roofs, playing fields and wetland that supports well-being and education outcomes. Vallabh Vidyanagar is first town in India to have Digital Tree Map, as on August 2015.

SPU township is having the largest no. of trees of 80 varied species recorded in a small area in the State (sources: more than 80,000 trees, around 60,000 parakeets in a region of 8 kms).

On a reclaimed ground at the satellite campus of the university, Biosciences has perspired to develop a balanced ecosystem with more than 450 recorded species of various life forms including 90 tree species, more than 70 butterflies and spiders each, about 90 bird species and a number of other life forms.















This Audit report is prepared by Green Mentors.

6. Minimise Heat Exposure to Sun: Non-Roof











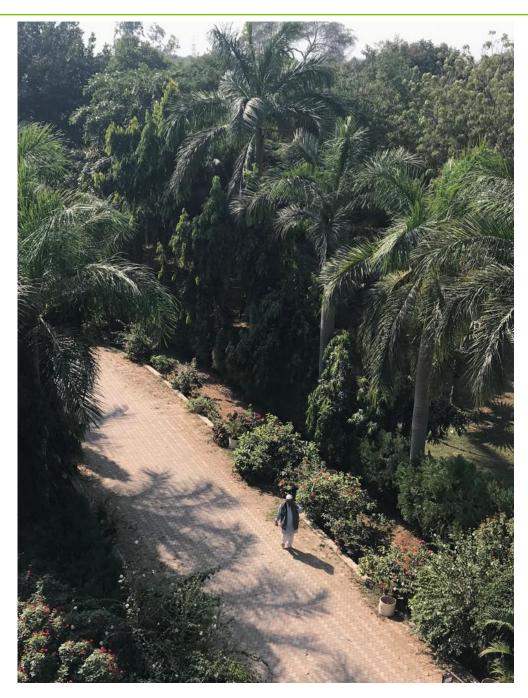








SPU Campus is housing 80,000 trees and plants spread in 86 acres of land area that is restricting impervious surfaces being exposed to sun, to minimize impact on microclimate in the campus.



# **BUILDING DESIGN & LANDSCAPING**

# 7. Minimise Heat Exposure to Sun: Roof













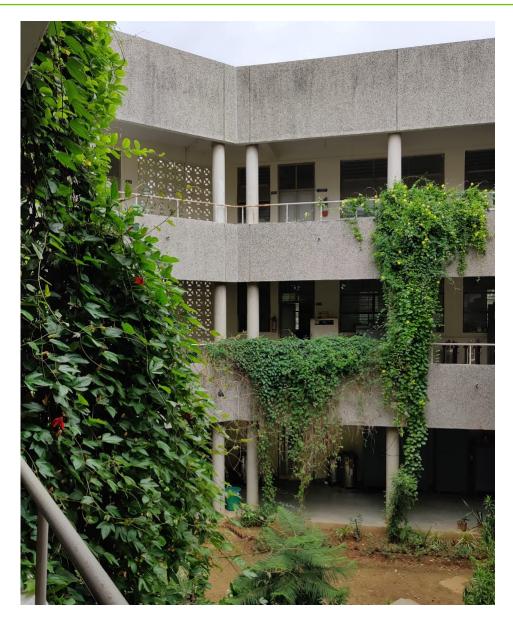






SPU has planted trees in a strategically way that provides shade to the roof in summer, when the leaves fall, the trees allows the sun to shine through, creating a desired solar heat gain effect during the winter.

Most of the roof areas are covered with solar panels and remaining areas are covered with tiles & paint to reduce the concrete surface that was exposed to the Sun that minimizes impact on the microclimate in the campus.





## **BUILDING DESIGN & LANDSCAPING**

### 8. Universal Design

















Universal Design for Learning (UDL) is an approach to teaching and learning that gives all students equal opportunity to succeed. The goal of UDL is to use a variety of teaching methods to remove barriers to learning. It's about building flexibility that can be adjusted for every person's strengths and needs.

Learning spaces at SPU are designed to facilitate to differently abled pupils. Hindrance-free movement's facility is available in common area.

The following University buildings are provided with ramps for differently able students.

- 1. Department of Home Science
- 2. University Press
- 3. Dept. of Business Studies/Mathematics/Statistics
- 4. Department of Pharmaceutical Sciences/MSW
- 5. Pariksha Bhavan

- 6. Department of Chemistry
- 7. Department of Education/M.B.P.C. College
- 8. Department of Humanities
- 9. U.S.I.C. Department
- 10. Dept. of Business Management (M.B.A.)





### 1. Rainwater Harvesting: **Roof & Non-Roof**



















The Earth's surface is acquired by 71% water but only 3% of water can be used as potable water. Nowadays conservation of water is one of the basic principles of green University.

SPU has well designed rainwater harvesting system in the campus that enhances ground water table and reduces potable water usage. SPU captures maximum run off volume of rain water from Roof & Non-Roof areas.

SPU is proactive for Environment Conservation practices. The University has 5 rain water harvesting tanks. In 2003, the first underground tank was constructed at Vice Chancellor's Residence which stored 10,000 litres water harvested from the rain fall.

Similarly, in the year 2014, same capacity underground tank of the same specification was provided at the Community Science Centre. The water stored is potable water and have been scientifically tested. Antifungal coating was applied while construction.

	Sr. No.	Water Harvesting Areas	Premises					
	1	Roof	Women Hostel No. 3					
Green Mentors.	2	Non Roof	V.C. Bungalow					
prepared by Gre	3	Non Roof	Community Science Centre					
	4	Non Roof	University Guest House					
This Audit report is	5	Non Roof	University Colony					





### **Water Recharge Well**

- (I) In the year 2004, water recharge well was constructed at University staff colony and University Guest House which harvest rain water of entire monsoon period. Due to this, the water table of the bore at University colony and University campus water table is maintained and there is no shortage of water during weak monsoon period. It has also helped to reduce the electricity bill due to constant ground water table availability at shorter depth.
- (ii) In the year 2013, Estate section constructed water harvesting recharge well near University Women Hostel No. 3. From the entire catchment area of the said hostel of approximately 5000 sq.ft., 2,50,000 litres water has been harvested in the recharge cell.
- (iii) In 2019, the University has provided land to the local Municipality for constructing another

recharge well.









# 2. Water Efficient Plumbing Fixtures











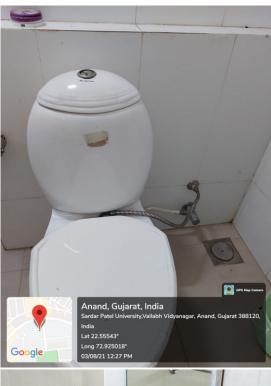






SPU have initiated responsible uses of fresh water practices in academic and hostel areas to reduce the consumption of potable water in drinking Water Points, face washing points, urinals, toilets to reduce water flow rate in the daily use.

Most of plumbing fixtures are low flow without hammering the performance. Plumbing fixtures have achieved water efficiency standards for Green University, and are working properly with no leaks or drips.







### 3. Turf Design

















Turf is a major component of whole landscape in SPU, which meets functional and aesthetic expectations for teaching learning community, while at the same time minimizing the impact of natural resources and the greater environment.

Turf area of SPU is having many drought tolerant species in its total vegetated area that minimizes water consumption.







### 4. Water Efficient Landscaping

















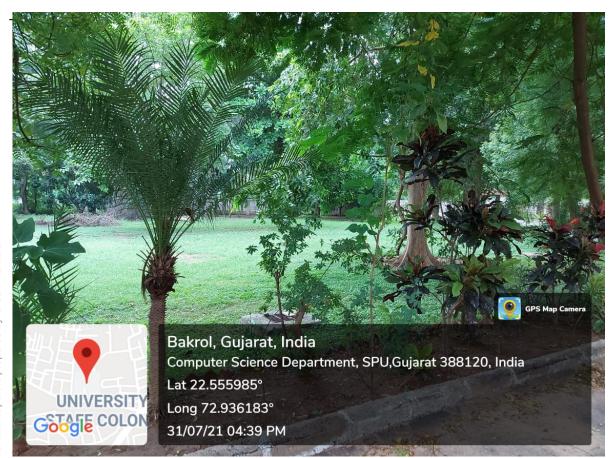


Most of the Universities in India use its maximum water for landscape and lawns irrigation, while water efficient landscape is one of that is functional, attractive, and easily maintained in its natural surroundings.

Whole Landscaping in SPU campus is water efficient that reduces the water consumption through responsible irrigation practices and mulching. Vegetated area of campus contains drought tolerant plant species including trees, shrubs, herbs, climbers and grass that required less water than other Species.

Total Landscape Area: 12,326.19 sq, mtr. (1,32,678 sq.ft)

Regular maintenance of gardens and parks in the University campus for beautification and creation of eco-friendly environment in the Green township of Vallabh Vidyanagar with due care of sprinkler watering systems with the University bore well water system is practiced.





### 5. Water Efficient Irrigation System









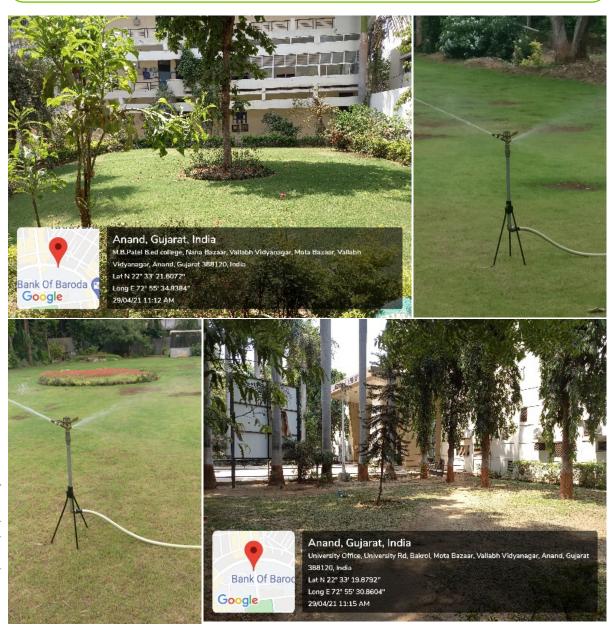








SPU uses sprinkle irrigation is an efficient irrigation system that keeps landscape plants healthy and beautiful. Instead of wetting the whole landscape, water is applied only to the plant root zone. The primary goal of sprinkle irrigation is to apply water at the time when plants need it most and in rates needed for proper plant growth.



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### 6. Waste Water Treatment

















SPU follows minimum water discharge campus, which means minimized water is discharged outside the campus and maximum water is harvested within the campus through many recharging wells.



### 7. Use of Treated Waste Water













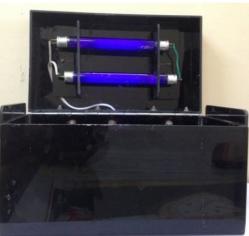




SPU has initiated gray water treatment to be used for flushing toilets and irrigation of vegetated areas that reduces dependence on fresh water.

Ultraviolet light for evaluating performance of potable water & waste water.







### 8. Water Use Monitoring

















SPU has standard water monitoring system which indicates daily, weekly and monthly water uses in various facilities.

Water quality is preserved through latest purification machines & real time alert of water overflow, leakages and dripping that ensures judicious use of Water Consumption.



This Audit report is prepared by Green Mentors.

**Cumulative Score** 

66/80



### 1. Tobacco Smoke Control











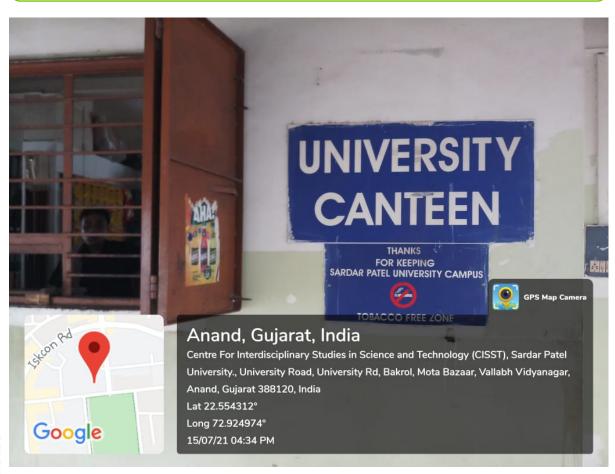








SPU is totally Smoke Free Campus, Anti Smoking Policies are strictly implemented that eliminates exposure of students & teachers to tobacco smoke & reduce health impacts caused due to passive smoking.





### 2. Day Lighting



















Indoor environmental conditions in classrooms and namely day lighting conditions also influence student's health, well-being and performance. The conscious use of daylight in Classrooms has a great potential for improving the comfort and the academic performance of users, contributing, simultaneously for the rational use of energy in building.

Maximum regular occupied spaces at SPU Campus are daylit, & average daylight factor is maintained.







### 3. Fresh Air Ventilation

















A good ventilation system helps to expel a build-up of pollutants, bacteria, moisture and unpleasant odors, such as body odor from classroom.

Maximum regularly occupied spaces like Classrooms, Laboratories, Libraries & Indoor Game Facilities of SPU Campus are adequately ventilated, and that improves health and well-being of Students & Faculties.

# Natural Air Cooling System at the Sport Complex:

A unique Natural air cooling system operating on solar system exists in the UV Sports building. 6 inch diameter PVC pipelines are installed along the Short Wall and have been laid beneath 10 ft ground level and the outlet is left in the Basketball Court area which cools the Court Area.

The Hot air is lifted by the Turbo ventilators fitted at the Ceiling.





### 4. Area of Class Room



















All learning spaces including classrooms of SPU are well designed according to statuary standard and norms that follows appropriate occupant density, which enhances Student's Productivity.







### 5. Anthropometric Dimensions in spaces















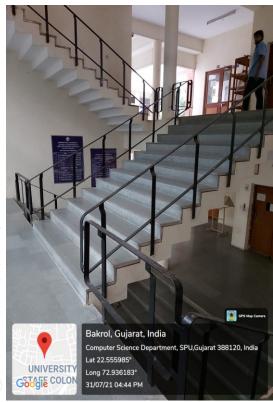




Anthropometry has a considerable importance in optimizing the design of buildings. The underlying principle of anthropometrics is that building designs should adapt to suit the human body, rather than people having to adapt to suit the buildings.

Anthropometric dimensions of learning spaces aims to create safe, comfortable and productive learning spaces by bringing human abilities and limitations into the designing of building, including the individual's body size, strength, skill, speed, sensory abilities (vision, hearing) and even attitudes.

Maximum learning spaces of SPU including Classrooms, Laboratories, Libraries & Indoor Game Facilities, Toilets, and Hostels & Canteen are designed according to standard anthropometric dimension norms that allow comfort to the students.









### 6. Toxin-free Environment

















Governing body of SPU has declared the policy to use material with low emissions especially Paints to reduce adverse health impacts on the students and teachers.



## 7. Dust-free Environment



















Governing body of SPU has declared the policy to use Dust Free Products including Chalks & other material to reduce adverse health impacts on the Students and Faculties.





# 8. Exhaust Systems

















Exhaust Fans are installed in all Toilets, Urinals, Canteens & Laboratories of SPU learning and residential facilities that maximize airflow & enhance the Indoor Air Quality. SPU has also opted for PNG in its residential facilities to maintained the Indoor Air Quality.





This Audit report is prepared by Green Mentors.

**Cumulative Score** 

75/80



# 1. Ozone Depleting Substances

















Ozone depleting substances are chemicals that destroy the earth's protective ozone layer. SPU has procured refrigerators and air conditioners, fire extinguishers, foam, aerosol propellants that have minimum impact on Ozone Layer Depletion.

SPU encourage the use of eco-friendly refrigerants in the University to minimize the impact on Ozone layer depletion. The Air Conditioner models that we have installed in last couple of years include,

- (i) Whirlpool Magic Cool (Inverter)
- (ii) Blue Star Models: IC324YATU, IC318YBTU.

All Air Conditioners installed since last couple of Years (@55 nos.) are with Eco Friendly Refrigerant R410A or R32. These eco-friendly refrigerants have zero Ozone depleting substances ensuring fast cooling through better heat transfer.







### 2. Energy Efficient Lighting Fixtures

















It has been proven time and time again that natural light is the best solution for reading or studying. SPU has as much natural light as possible to get the best learning outcome.

Energy efficient lighting includes the use of more illumination from less power lights by replacing high power consumption lights like incandescent, high discharge lamps.

LED lighting provides a safe, secure & energy-efficient environment on campus at all times. LEDs also reduce the cost of operation while satisfying the needs of faculty members and students who can appreciate the benefits of eco-friendly solutions.

LEDs also provide outstanding durability in the environments that can place an incredible amount of stress on light bulbs and lighting fixtures, such as a university campus.

Due to the high-quality energy efficiency, LED lighting allows universities to save a significant amount of money on repairs, operating costs, and maintenance costs. When compared to a traditional light bulb, LED light bulbs consume less than half the energy that the traditional light bulb.

SPU has installed LED Lightening & Fixtures instead of old Lightning that reduces the environmental impacts associated with energy use.

As an University Policy all Lighting Fixtures either to replaced / new installation mandatorily Use Low Wattage LED Fixtures only.

As on date University has installed following Energy Efficient Lighting Fixtures:

### **CISST Building:**

- 4 Ft LED Fixtures T5/18W ... 282 nos
- CISST Building: 2 Ft LED Fixtures T5/12W ... 26 nos
- Energy Efficient BLDC Type Fans 28W: (Atombergmake) .. Qty: 140 nos

### **P G Dept of Electronics:**

As a part of Re-Electrification Project for this Building, we have replaced 100 nos of Copper Ballast TL fixtures with 4 Ft LED Fixtures T5/18W

#### **Animal House:**

The luminaries installed for newly constructed Animal House are equipped with 4 ft T5 type / 20 Watt Fixtures. Qty: 100 nosSyska make 20 Watt and 07 nos Syska make 10 Watt



#### Administrative Office:

While renovating the VC Wing and VC Office, all existing TL were replaced with 2x2 Syska make 36 Watt LED Fixtures - Qty: 34 nos

### **General Practice:**

As a policy decision Copper Ballast TL fixtures as and when found faulty is replaced with T8 type / 20W LED TL Fixtures. A total of @ 1600 Copper Ballast TL fixtures are replaced with T8 type 20W LED Fixtures on S P Campus.

### **Smart Class Rooms / Assembly Hall**

The luminaries installed for Smart Class Rooms / Assembly Hall at P G Dept of Mathematics, Business Studies, Statastics, Chemistry, Electronics, Economics, MBA, Computer Science and Humanities building are all with Energy Efficient LED Fixtures.

-2 x 2 LED Fixtures / 36 Watt / Syskamake : 117 nos

-1 x 1 LED Fixtures / 18 Watt / Syskamake: 87 nos

-6" Round LED Down Light: 15 Watt / 63nos

-LED type T5 20 Watt Fixtures: 06 nos

### **Swimming Pool:**

All Luminaries installed at newly constructed lpcowala Swimming Pool and Gymnasium are facilitated by energy efficient Led Fixtures only.

-1 x 1 Surface LED Light - Wipro make : 18 Watts : 211 nos

-12 Watt Round Surface Fixture: 16 nos

-9 Watt Bulk Head LED Fixtures: 22 nos

-4 Ft T5 Type LED Fixture 20 Watts: 26 nos

### **Gyanoday Pariksha Bhawan:**

The newly constructed 5th Floor of Gyanoday Pariksha Bhawan is equipped with following:

-2 x 2 / 36 Watts LED Fixtures Syska make .. 110 nos

-1 x 1 / 18 Watts LED Fixtures Syskamake.. 30 nos

-4 FT LED TL / T5 type: 18 Watts: 10 nos







# 3. Energy Efficient Fans



















SPU has installed Energy efficient Fans and Air Conditioners instead of High Energy Consuming Fans and Air conditioners that reduces the environmental impacts associated with energy use.

SPU enhances energy efficiency by installing efficient fans, thereby reducing the environmental impacts associated with energy use. A total of 140 nos of 28 Watts / BLDC Type Atomberg Fans are installed at CISST building.







4. Energy Efficiency in Appliances & Equipment

















Modern electronic appliances, such as, freezers, ovens, stoves, dishwashers, clothes washers and dryers, use significantly less energy than older appliances. Installing STAR rated electronic appliances significantly reduces energy consumption.

SPU has replaced energy efficient Electronic Appliances & Equipments instead of High Energy Consuming Appliances that reduces the environmental impacts associated with energy use.

SPU encourages the use of efficient appliances & equipment, thereby reducing the environmental impacts associated with energy use.







### 5. Energy Sub-Metering



















SPU practices continuous monitoring of energy uses through sub metering and aspirate metering of each learning spaces, residential and open spaces throughout the year towards achieving judicious use of energy, which inspire teaching learning community to save the energy in their day to day uses.

Sensor based Lights for the Corridors using circuits prepared by community science centre volunteers.

### **ENERGY CONSUMPTION CHART**

Sr. No.	Building / Dept	Plant Capacity	% Load met with Solar Generation										
	PHASE 1												
1	P G Dept of Chemistry	15 KW	35% to 45%										
2	P G Dept of BioSciences	25 KW	15% to 20%										
3	Nehru Hall	15 KW	65% to 70%										
4	Bhaikaka Library	35 KW	50% to 60%										
PHASE 2													
5	Humanities Building	20 KW	50% to 55%										
6	Ladies Hostel	20 KW	40% to 50%										
7	P G dept of Electronics	20 KW	35% to 40%										
8	P G Dept of Mathematics	12 KW	25% to 30%										
9	M B A	20 KW	35% to 40%										
10	P G Dept of Physics	32 KW	25% to 30%										
11	P G Dept of Computer Science	20 KW											



### 6. On-Site Renewable Energy















9



SPU has installed an 11.5 KVA Solar power plant as on-site Renewable Energy Source; however it encourages student community to save energy to minimize environmental impacts of using fossil fuels.

University has also installed small wind generator with Nano wind - solar hybrid inverter system.

SPU have installed 11 nos. of Roof Top Solar Power Plants as per following details:

### Installation of PV Solar Plant at SPU

Sr. No.	Building / Dept	Plant Capacity	Date of Activation										
	PHASE 1												
1	P G Dept of Chemistry	15 KW	28-11-2017										
2	P G Dept of BioSciences	25 KW	04-07-2018										
3	Nehru Hall	15 KW	28-11-2017										
4	Bhaikaka Library	35 KW 28-11-201											
	TOTAL	90 KW											
	PI												
5	Humanities Building	20 KW	03-09-2020										
6	Ladies Hostel	20 KW	01-09-2020										
7	P G dept of Electronics	20 KW	01-09-2020										
8	P G Dept of Mathematics	12 KW	01-09-2020										
9	МВА	20 KW	03-09-2020										
10	P G Dept of Physics	32 KW	24-03-2021										
11	P G Dept of Computer Science	20 KW	Installed but Net Metering Pending										
	TOTAL	124 KW											

Total Solar Plant of Phase 1 + Phase 2 = 214 KW.





This Audit report is prepared by Green Mentors.

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# 7. Solar Water Heating Systems

















SPU have installed solar water heating System in its all hostel facilities that minimize the environmental impacts of using fossil fuels.









### 8. Distributed Power Generation

















SPU has well designed power distribution system in place that allows power supervisor to monitor power supply according to judicious need of the users.

The University pioneered in the installation of a Wind Solar hybrid Inverter system in the year of 2005.

1 Dual Axis Solar Tracker – 1.5 KW with Battery Backup (12V,100 Ah, 8 Nos.) 9.6 KWH were installed at the Physics and 2 at MBA Departments in 2013.

Dual Axis Solar Tracker on Grid of 1.5 KW at Gyanodaya and 3KW at Agro Economic Research Centre respectively in 2013 and 2012.

Sr. No.	Name & Address	System	Quantity	Installation Date	Remarks	
1	Physics Department, S.P.University	Dual Axis Solar Tracker – 1.5 KW	01	21-06-2012	Battery Backup (12V,100 Ah, 8 Nos.) 9.6 KWH	
2	Gyanoday, S.P.University	Dual Axis Solar Tracker – 1.5 KW	01	26-04-2013	ON Grid	
3	MBA Department, S.P.University	Dual Axis Solar Tracker – 1.5 KW	02	26-10-2013	Battery Backup (12V,100 Ah, 8 Nos.) 9.6 KWH in each System	
4	Agro Economics Department, S.P.University	ON Grid Single Axis Solar Tracker – 3 KW	01	17-10-2012	ON Grid	
5	Science Community Centre, S.P.University	Wind Solar Hybrid System(100W Nano and 75W Solar Panel)	01	10-06-2005	Battery Backup (12V,150 Ah, 1 Nos.) 1.8 KWH	



### 1. Toilet Facilities



















SPU has outsourced Hygiene & Cleanliness work to the local external cleaning agency, which maintains Hygiene & Cleanliness standards in all toilets regularly that reduces the infections risk on Students and Teacher's Health & well-being.





# 2. Drinking Water Facility



















Water Quality of all Drinking Water stations & Tapes are maintained at SPU Campus. Water Quality Reports are checked by Government Authorized Laboratories in regular interval of time to ensure Clean & Safe Drinking Water at all the time to everyone.



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## 3. Access to Healthy Food



















Healthy food plays an important role in the optimal growth, development, health and well-being of individuals in all stages of life. Healthy and nutritious Food is accessible to all students & teaching staff at the Canteen of SPU that maintain the fitness of teaching learning community. Catering facility of SPU is outsources to the local food making agency. Junk Food is strictly prohibited in the Campus.









# POST GRADUATE DEPARTMENT OF HOME SCIENCE

(UGC-SAP-DRS)

# SARDAR PATEL UNIVERSITY

NAAC Re-Accreditation : Grade - A, CGPA-3.25 Near Bhaikaka Library, Vallabh Vidyanagar - 388 120 (Gujarat), India

Phone: (02692) 226877 / 78 Fax: (02692) 236475 Website: www.spuvvn.edu

Ref. No. : PG/HSC/

# TO WHOM SO EVER IT MY CONCERN

This is to certify that we, the staff members of Foods and Nutrition Department, visited the mess of University ladies hostel as well as the University canteen and evaluated the following aspects:

- Sanitation and hygienic conditions are maintained during cooking, serving and storing of food items.
- The type of foods served is good in terms of quality and quantity.
- All types of seasonal fruits and vegetables are served to the students. Moreover germinated as well as fermented foods are also served, periodically.
- A well balanced diet is served during lunch and dinner like dal, one pulse, rice, chapati, buttermilk and salad which meets the nutritional requirement of the students.

We wish them good luck for future

Head
P. G. Department of Home science,
Sardar Patel University,
Vallabh Vidyanagar

Head Department of Home Science Sardar Patel University Vallabh Vidhyanagar-388120.

# 4. Sports Amenities



















SPU offers various sporting opportunities to its undergraduate, post graduate & doctoral students. All Indoor & Outdoor sports amenities at SPU are designed to achieve excellence in sports to enhance growth and health of students.







### 5. Dedicated Playground

















SPU is having dedicated Sports Amenities for many sports, while facilities for other sports are shared to minimize impact on environment.

SPU also have dedicated facilities for Cricket, Volleyball, Kabaddi, Kho-kho, Badminton, Basketball, Table-Tennis, Handball, Chess, Football, Athletics, Cross Country, Judo, Power Lifting, Boxing, Wrestling.













## **HEALTH & HYGIENE PRACTICES**

#### 6. Organic Fertilizers and Pesticides

















SPU uses Organic Fertilizers and Pesticides to reduce Health impacts on Students and Faculties. Composting pits prepares enough fertilizers for entire vegetated area.



#### 7. Green Housekeeping



















SPU uses environment friendly cleaning products to clean its Learning & residential spaces. Eco friendly Cleaners are also used to clean the toilets and drinking water Stations to prevent chemical related Health hazards.



#### 1. Waste Segregation



















Waste Segregation Mechanism is well placed at SPU Campus. Waste generated through various sources and practices is being segregated in the safe manner & sent to recycling & composting sites or authorized recyclers in the safe manner, which prevents the waste being sent to the landfills.

A unique e- waste management system is followed by Sardar Patel University. An outreach programme on repair and reuse of lower version 18 computers donated for use to an NGO working for slum children. Others were disposed off as per the government regulation: income generated Rs. 7, 55,500 in 2020-21.



R

#### Chemical waste

Chemical waste handled as per the standard norms, All materials used in microbiology laboratory like solid media, liquid media, used glassware, other solutions and chemicals etc are decontaminated immediately after the end of experiments, before they are discarded.

Chemical wastes is usually segregated by compatibility groups such as acids, bases, flammables, oxidizers, water reactive, etc. Inorganic solids & liquids, and organic solid & liquid wastes are separately stored. The acidic wastes, halogenated organics and organic solvents are also kept separately.

The hazardous chemicals are stored in containers tagged/labelled as "Hazardous Waste". Mercury waste and mercury containing items (such as thermometers, manometers, etc.) are stored separately.

Waste oil, collected from vacuum pumps and other types of laboratory equipment are collected in a separate waste container.

Broken glass utensils are stored and hand over to concern authority for recycling. Plastic waste (bottles, gloves, plastic pipettes, etc.) are collected separately for recycling. Used batteries are collected separately for proper disposal.





#### Biomedical Waste Segregation

SPU follows biomedical waste segregation rules & dispose accordingly in different colour bags.

SPU also maintain records of the e-waste generated, handled and disposed and make such records available for scrutiny by the concerned State Pollution Control Board.







# Income is generated chart from e-waste through Scientific Instruments, Computer & its peripherals

Sr. No.	Party Name	University Letter Number	Amount Received in INR	Write Off / Remarks
1	Galaxy Recycling ,Bharudi, Rajkot	T/WriteOff/2020- 21/1470,	21,000=00	Scientific Instruments
		D: 04-08-20		
2	Galaxy Recycling ,Bharudi, Rajkot	T/WriteOff/2020- 21/1470,	22,000=00	Scientific Instruments
		D: 04-08-20		
3	Galaxy Recycling ,Bharudi, Rajkot	T/WriteOff/2020- 21/1470,	2,800=00	Scientific Instruments
		D: 04-08-20		
4	Galaxy Recycling ,Bharudi, Rajkot	T/WriteOff/2020- 21/1469,	1,03,000=00	Computer and its peripherals & Scientific Instruments
		D: 04-08-20		
5	Jay Ranchod Traders, Ahemedabd	T/WriteOff/2020- 21/1469(1),	35,000=00	Scientific Instruments
		D: 19-09-20		
6	M.S.Traders, Ahemedabad	T/WriteOff/2020- 21/1472(1),	2,20,500=00	Scientific Instruments
		D: 19-09-20		
7	M.S.Traders, Ahemedabad	T/WriteOff/2020- 21/1472(1),	1,10,500=00	Scientific Instruments
		D: 19-09-20		
8	M.S.Traders, Ahemedabad	T/WriteOff/2020- 21/1472(1) ,	2,15,500=00	Scientific Instruments
		D: 19-09-20		
	Total Income:		7,55,500=00	



#### 2. Organic Waste Management



















Biowaste disposal: NOT a single leaf out of 200 tress is burnt, all go for composting. An SSIP project given to an alumnus of a University with an order to prepare vermicompost in 04 departments from Biowaste on the campus.





#### 3. Green Policy

















SPU framed broader Green Policy that inspires its teaching learning community to take responsibility for future through their behavior with nature and natural resources.

#### e-Waste Management Policy

#### Introduction

e-waste is a general category for electronic products facing displacement or replacement that are hazardous due to the toxic metals present with their internal materials, coatings and glass. E-waste contains metals and other materials that can be hazardous to human health and the environment if they are not properly managed. University acknowledges the need for proper e-waste handling and disposal.

e-waste: Electronic waste or e-waste may include personal computers and its peripherals, Scientific Instruments, monitors, televisions, keyboards, printers, telephones, typewriters, calculators, copiers, fax machines and audio equipment.

The purpose of the policy is to facilitate implementation of the action plan brought out in "National Environment Policy 2006" on management aspects of hazardous e-waste including their minimization, environmentally sound management and active promotion of transfer and use of cleaner technologies.

#### Objectives of this policy

- ➤ To ensure that e-waste management is performed in accordance with all e-waste legislative requirements, including the duty of care, and to plan for future legislative changes and to mitigate their effects.
- ➤ To minimize e-waste generation at source and facilitate repair, reuse and recycling over the disposal of e-wastes in a cost effective manner.
- To provide clearly defined roles and responsibilities to identify and co-ordinate each activity of the e-waste management.



- ➤ To promote environmental awareness in order to increase and encourage e-waste minimization, reuse and recycling.
- ➤ To invest into the expansion of recycling opportunities on the University campus and transform e-waste into value added products.
- ▶ To ensure the safe handling and storage of e-wastes on University campus.
- ➤ To provide appropriate training for teacher, resident, staff, students and other stakeholders on e-waste management issues.
- ▶ To promote holistic approach of e-waste management in the campus.
- ➤ To collect e-waste generated during the manufacture of any electrical and electronic equipment and channelize it for recycling or disposal.
- ➤ To ensure that no damage is caused to the environment during storage and transportation of e-waste.
- ➤ To maintain records of the e-waste generated, handled and disposed and make such records available for scrutiny by the concerned State Pollution Control Board.

# Laboratory Chemical Waste Disposal Management Policy

- 1. Chemical wastes should be segregated by compatibility groups such as acids, bases, flammables, oxidizers, water reactive, etc.
- 2. Inorganic solids & liquids and organic solid & liquid wastes should be separately stored.
- 3. The acidic wastes, halogenated organics and organic solvents should be kept separately.
- 4. All chemical wastes should be stored in plastic bottles/ container stagged/ labeled the words: "Hazardous Waste".
- 5. Each chemical waste container must be labeled with full name of each chemicals being stored together, and lab number.
- 6. The organic solvents (volatile) should be distilled to collect individual solvents, which can be used for washing/ rinsing of glass wares, etc.
- 7. The solvent waste can be blended with compatible solid materials.
- 8. Hazardous and toxic chemicals must never be poured down the drain as a method of disposal.
- 9. Mercury waste and mercury containing items (such as thermometers, manometers, etc.)should be stored separately.



- 10. There are many chemical wastes that do not meet the definition of a hazardous waste. These materials can be stored together for proper disposal.
- 11. All empty chemical containers must be properly rinsed with appropriate solvent before disposal.
- 12. Waste oil, collected from vacuum pumps and other types of laboratory equipment should be collected in a proper waste container.
- 13. Metal waste from laboratory should be stored at proper place.
- 14. Broken glass utensils should be stored and hand over to concern authority for recycling.
- 15. Plastic waste (bottles, gloves, plastic pipettes, etc.) should be collected separately for recycling.
- 16. Used batteries should be collected for proper disposal.
- 17. Used cotton, other fabric, and paper waste materials should be stored separately for disposal.





# POST GRADUATE DEPARTMENT OF BIOSCIENCES CENTRE OF ADVANCED STUDY IN BIORESOURCE TECHNOLOGY SARDAR PATEL UNIVERSITY

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To whomsoever concerned

# The paperless administration for Board of Studies Biosciences Initiative

The Board of Studies in Biosciences in its meeting on 9th March, 2021 put up the idea to initiate Paperless work from March 2021 onwards.

Paper circulars and notices are no more circulated in paper, only soft copies are sent to the members.

All relevant documents/archives pertaining to Board matters are stored on cloud and access is made available to members.

The new PG syllabus, PG2021 Biosciences for all PG Biosciences subjects, microbiology, Biotechnology, biochemistry, Botany and zoology has been prepared, circulated and submitted to the University without printing a single page

The reference syllabi from various reputed universities (amounting to few thousand pages) was downloaded/studied online by various committee members without printing a single page

In coming three years it is planned to extend paperless administration to other activities of board like exam orders, synopsis documents, rules regulations etc. through soft copy circulations only. If successful and convenient, this may also be extended to other Boards and Faculties

Regards

(Ujjval Trivedi) Chairman

Board of Studies in Biosciences

Chairman
Board of Studies In Biosciences
Department of Biosciences
Sardar Patel University
Satellite Campus, Bakrol.



## 4. Salvaged Materials











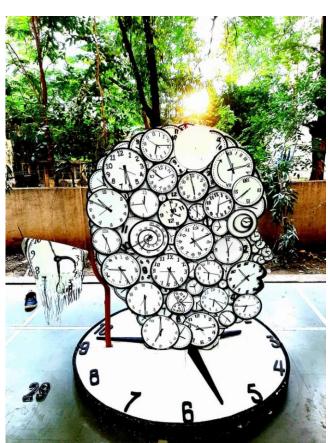








SPU makes new furniture & fixtures by using salvaged materials towards reducing the dependence on virgin materials.









# 5. Eco-friendly Wood Based Materials







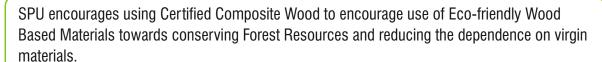


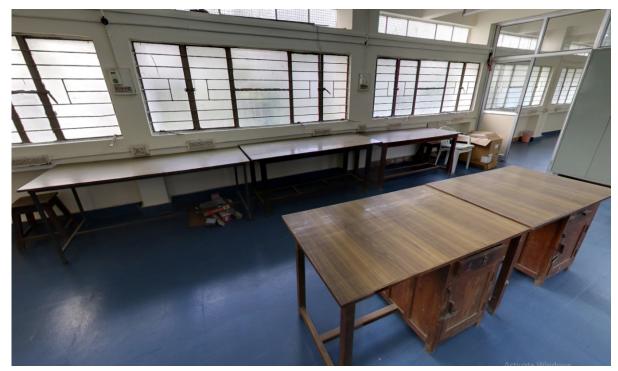














6. Materials with Recycled Content



















SPU uses materials in its new construction sites and repairing spaces, which have recycled content like Concrete, Bricks, Fly ash Bricks, Aluminum Windows and Glass & Tiles to reduce environmental impacts associated with the use of virgin materials.





#### 7. Local Materials







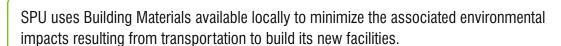














**Cumulative Score** 

62/70



# **SUSTAINABILITY EVALUATION CHART**

Sr. No.	Assessment Areas	Cumulative Score
1.	GOVERNANCE & ACADEMIC	39/40
2.	BUILDING DESIGN & LANDSCAPING	71/80
3.	WATER MANAGEMENT PRACTICES	66/80
4.	AIR QUALITY LEVEL	75/80
5.	ENERGY USES & SAVING PRACTICES	72/80
6.	HEALTH & HYGIENE PRACTICES	65/70
7.	SUSTAINABLE RESOURCES UTILIZATION	62/70
	Total	450/500

This Audit report is prepared by Green Mentors.

	<b>✓</b>			
Rejection	Certification	Silver	Gold	Platinum
000-100 Points	100-200 Points	200-300 Points	300-400 Points	400-500 Points



# **GREEN MENTORS**

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